

REMARKS

Claims 1-13 are pending in this application. In view of the following remarks, reconsideration and allowance are respectfully requested.

I. Rejections Under 35 U.S.C. §102(b)

A. A. '701 or '931

The Office Action rejects claims 1 and 8-13 under 35 U.S.C. §102(b) as anticipated by either JP 63-256701 ("701") or JP 6-58931 ("931"). Applicants respectfully traverse the rejection.

The Office Action asserts that both references disclose two absorbent layers with a hydrophilic non-woven sheet there between. In particular, the Office Action asserts that with respect to '701, the non-woven sheet 5 acts as a channel member allowing fluid to pass from the uppermost absorbing layer 4 to the upper side of the lower absorbing layer 7. With respect to '931, non-woven sheet 3 acts as the channel member allowing fluid to pass from the uppermost absorbing layer 2 to the upper side of the lower absorbing layer 4. *See* Office Action, page 2.

Moreover, the Office Action asserts that "any non-woven sheet located between two absorbing layers would be capable of transferring fluid from a surface of a first uppermost sheet to the upper side of the second sheet located there below since the non-woven sheets have openings between the fibers. *See* page 5, paragraph 2.

Independent claim 1 recites: "An absorber comprising ...a by-pass channel member which has a channel for moving the aqueous liquid fed to a surface of a first super-absorbent sheet positioned uppermost in the laminated absorbent member from the surface of the first super-absorbent sheet to another super-absorbent sheet, wherein the side to be fed with the aqueous liquid in the laminated absorbent member is assumed to be an upper side" (emphasis added). Neither '701 nor '931 teaches or suggests such a feature.

The absorber of claim 1 requires a "by-pass channel member." The word "by-pass" is defined as "a pipe or channel used to conduct gas or liquid around another pipe or a fixture; a means of circumvention" (The American Heritage® Dictionary of the English Language: Fourth Edition; 2000).

Claim 1 requires a by-pass channel member which has a channel for moving the aqueous liquid fed to a surface of a first super-absorbent sheet positioned uppermost in the laminated absorbent member from the surface of the first super-absorbent sheet to another super-absorbent sheet, wherein the side to be fed with the aqueous liquid in the laminated absorbent member is assumed to be an upper side.

Figures 3(A) and 3(E) exemplify five different ways that aqueous liquid may be moved to different layers of an absorber by use of a by-pass channel member. The specification teaches "providing a by-pass channel member for by-passing from the uppermost surface layer to the lower layers in an absorber composed by laminating super-absorbent sheets in multiple layers, to realize an absorber that fully cope with the flow speed of the aqueous liquid into it and furthermore achieves a faster absorbing speed than that of the conventional thick absorber..." and that "the absorber of the present invention can achieve an extremely high absorbing speed by utilizing the absorbing capability of multiple layers, wherein an aqueous liquid fed to the first super-absorbent sheet of the laminated super-absorbent sheets in multiple layers, i.e., the super-absorbent sheet positioned closest to a wearer's side when it is worn by the wearer, is distributed to other layers via the by-pass channel member." *See* pages 5 and 6. In other words, the disclosed invention provides by-pass members that divert a portion of a volume of aqueous liquid from the upper surface of a first layer of an absorber to one or more other layers of the absorber. Accordingly, the diverted portion of the liquid moves past the first layer at a rate that is faster than the rate of the non-diverted portion of the liquid which permeates through the first layer. Therefore,

embodiments according to the disclosed invention are configured with by-pass members to allow multiple super absorbent layers to almost simultaneously handle a given volume of aqueous liquid, resulting in much higher absorbing speeds than those achieved by the prior-art devices.

For example, '701 teaches that "urine penetrating through the coverstock nonwoven breaches the second polymer layer by passing through the third fluff pulp. Since the second polymer layer has a low absorbing speed, the urine further passes through the second fluff pulp to the first polymer layer by the influence of the pressure from the diaper wearer while longitudinally diffused by the intermediate nonwoven." *See* page 5, lines 15-21. '701 further teaches that when urine moves from the second fluff pulp 4 to the first fluff pulp 7, all of urine must pass through the intermediate non-woven sheet 5 before arriving at the first fluff pulp. *See* Figure 1.

Similarly, '931 teaches that when urine moves from the first absorber layer 2 to the second absorber layer 4, all of the urine must pass through the middle sheet 3 before arriving at the second absorbing layer. *See* Figure 2.

Therefore, neither '701 nor '931 teach or suggest a by-pass channel member in accordance with claim 1, and do not anticipate claim 1. Claims 8–13 variously depend from claim 1 and, thus, also are not anticipated by either '701 or '931. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

B. Cree

The Office Action rejects claims 1 and 8-13 under 35 U.S.C. §102(b) as anticipated by U.S. Patent No. 5,947,945 to Cree et al. ("Cree"). Applicants respectfully traverse the rejection.

Claim 1 recites: "An absorber comprising ...a by-pass channel member which has a channel for moving the aqueous liquid fed to a surface of a first super-absorbent sheet

positioned uppermost in the laminated absorbent member from the surface of the first super-absorbent sheet to another super-absorbent sheet, wherein the side to be fed with the aqueous liquid in the laminated absorbent member is assumed to be an upper side" (emphasis added). Cree fails to teach or suggest such a feature.

Cree discloses, "The core 16 is comprised of three parts each having distinct properties. The first part, closest to the body is the acquisition layer 22. It contacts the fluid. Then the second layer, the transfer or distribution layer 20 transports the fluid to the third layer, the storage layer 18." See column 3, lines 38-42. Accordingly, the transfer layer 20 transports the fluid from the inside of the acquisition layer 22 to the storage layer 18. Therefore, Cree fails to teach or suggest a transfer layer transports the fluid from the surface of the first uppermost sheet to the upper side of the second sheet, as required by claim 1.

Cree further discloses, "In FIG. 2(b) the transfer layer is continuous. A layer of formed-film transfer layer 20 is attached to the scrim 24 which is filled with fibers 26." See column 5, lines 22-24. Accordingly, the transfer layer 20 transports the fluid from the acquisition layer 22 to the part filled with fibers 26, and to the storage layer 18. However, the transfer layer 20 transports the fluid from the backside of the acquisition layer 22 to the storage layer 18. Therefore, Cree fails to teach or suggest a transport layer that transports fluid from the surface of the first uppermost sheet to the upper side of the second sheet, as required by claim 1.

Therefore, Cree does not anticipate claim 1. Claims 8-13 variously depend from claim 1 and, thus, also are not anticipated by Cree. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

II. Rejection Under 35 U.S.C. §103

The Office Action rejects claims 2–7 under 35 U.S.C. §103(a) over '701, '931, or Cree in view of applicant's alleged discussion of prior art ("ADPA") and U.S. Patent No. 4,323,069 to Ahr et al. ("Ahr"). Applicants respectfully traverse the rejection.

For the reasons discussed above, '701, '931, and Cree fail to teach all of the features of claim 1. ADPA and Ahr are only cited for limitations of dependent claims 2-7. Regardless, of its asserted disclosures, ADPA and Ahr do not cure the deficiencies of '701, '931, and Cree. Therefore, '701, '931, Cree, ADPA, and Ahr, considered either separately or in combination, fail to teach or suggest all of the features of independent claim 1.

Claim 1 would not have been rendered obvious by '701, '931, Cree, ADPA, and Ahr. Claims 2–7 depend from claim 1 and, thus, also would not have been rendered obvious by '701, '931, Cree, ADPA, and Ahr. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

III. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of the application are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



James A. Oliff
Registration No. 27,075

Jeffrey R. Bousquet
Registration No. 57,771

JAO:JXT

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OLIFF & BERRIDGE, PLC
P.O. Box 19928
Alexandria, Virginia 22320
Telephone: (703) 836-6400

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